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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/531,413

04/15/2005

Rolf Neumann

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PHILIPS INTELLECTUAL PROPERTY & STANDARDS  
595 MINER ROAD  
CLEVELAND, OH 44143

EXAMINER
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SAIDI, AZADEH

ART UNIT	PAPER NUMBER
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3735

MAIL DATE	DELIVERY MODE
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10/18/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/531,413

Applicant(s)

NEUMANN ET AL.

Examiner

Anita Saidi

Art Unit

3735

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) 17-20 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-15 and 21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 April 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_.
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- ☐ Notice of Informal Patent Application
- ☐ Other: \_\_\_\_.

### **DETAILED ACTION**

1. This Office action is responsive to the Amendment dated July 17<sup>th</sup> 2007. the Examiner acknowledges the cancellation of claims 11 and 21 and the amendments to claims 1-3, 7-10, 12 and 15, and new claims 22-26. Claims 1-10, 12-15 and 22-26 are currently pending.

New claim 22 is drawn to an apparatus, however claims 24-26, which are, dependent on claim 22 are drawn to a method claim. This appears to be a typing error, therefore claims 22-26 have all been considered as an apparatus claim.

### ***Response to Arguments***

2. Applicant's arguments, see page 9 lines 26-27, filed on July 17<sup>th</sup> 2007, with respect to the rejection(s) of claim(s) 1-15 under 35 U.S.C. 102 and 103 have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of newly found prior art references.

### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Art Unit: 3735

4. Claims 1-6, 13-15, 22 and 26 are rejected under 35 U.S.C. 102(b) as being anticipated by US 6,658,276 to Kianl et al (Hereinafter "Kianl").

In reference to claims 1-3 and 22:

Kianl teaches a pulse oximeter user interface, which comprises a display and a plurality of views. Each of the views are adapted to present data responsive to a physiological signal. One of the views is a pleth view that presents a pulse waveform. Another one of the views is a trend view that presents a trend graph (Abstract of Kianl). Kianl also discloses a method for representing variation in oxygen saturation and perfusion index, heart rate and other physiological information (Fig. 4 of Kianl). As disclosed the pulse oximeter display system is attached to a pulseoximeter (Fig. 1c, the finger cuff is attached to the system 105 of Kianl). Kianl teaches the steps of deriving a pulse waveform responsive to a physiological signal, calculating a data trend responsive to the physiological signal and providing the pulse waveform in a first display view (Col. 2, lines 32-41 of Kianl). The oxygen saturation is measured and a trend of the variation in the subsequent perfusion indices are calculated and displayed on the monitor (510 in Fig. 5A and 610 in Fig. 6 of Kianl, represent the reference value and the variation of the signal at each point in the time, each data point can be identified as a reference value, in comparison with the adjacent data point and Col. 11, lines 32-49 of Kianl).

Art Unit: 3735

In reference to claim 4:

The reference value is stored on a memory chip (Col. 11, lines 32-49 of Kianl).

In reference to claim 5-6:

The reference value as well as the subsequent perfusion indices are scaled by a factor (Col. 6, lines 10-15 of Kianl). The waveform is scaled based on the signal strength and therefore this factor is not fixed and is adjusted based on the strength of the signal.

In reference to claims 13 and 14:

An upper alarm limit and a lower alarm limit are provided (Col. 6, lines 17-25), the alarm limit is adjustable (Col. 12, lines 50-56 of Kianl).

**Note:** The claim does not specify what the upper and lower alarms are provided for, but for the purpose of art rejection, the limit refers to the oxygen saturation level.

In reference to claim 15:

An alarm signal is triggered when the alarm limit is exceeded (Col. 6, lines 22-25 of Kianl).

In reference to claim 26:

The display unit is further configured to display arterial O<sub>2</sub> saturation determined by the pulsoximeter (Fig. 5B of Kianl).

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kianl in view of US 2004/0204635 to Scharf et al (Hereinafter "Scharf").

In reference to claim 7:

Kianl teaches all of the claim limitation, see the rejections above.

Kianl only displays the trends in graphical form (Fig. 10, icons 896 in Fig. 8b of Kianl)

However, Kianl fails to teach:

The relative deviation of the perfusion is presented in numerical form and the reference value is displayed in numerical form.

Scharf teaches:

Art Unit: 3735

A device for the annotation of physiological data with associated observational data. The system captures data pertaining to caregiver observations that further define, describe, or qualify associated physiological data. The system facilitates the integration of numerous forms of observational data with associated physiological data, displays the recorded physiological data suitably annotated with the associated observational data through a variety of customizable graphical user interfaces. A sensor is used to generate a plurality of physiological data related to a physiological condition of the subject, an event module to capture a plurality of observational data associated with a physiological condition of the subject (Abstract of Scharf).

Scharf also provides the blood perfusion levels and the quality of detected pulse or physiological signals in the form of vertical bar graphs (430 and 435 in Fig. 4c of Scharf; respectively), which is another exemplary GUI view that displays a numeric perfusion index (440 of Scharf), as well as a trend screen (445 of Scharf) for perfusion in addition to the plurality of views displayed in FIG. 4b.

Therefore it would have been obvious to one having ordinary skill in the art at the time the applicant's invention was made to have used a known technique, such as displaying numerical values of the collected data or graphical display as a means for displaying the collected data, for better

Art Unit: 3735

comparison between the current record with the previously collected data, and a better way of informing the caregiver of the condition of the patient being monitored; similar to the one taught by the display device of Scharf in order to improve the data presentation and providing a full report of the patient's activity in the pulse oximeter display of Kianl.

7. Claims 8-10 and 23-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kianl in view of US 6,322,516 to Masuda (Hereinafter "Masuda").

In reference to claims 8-10 and 23-25 :

Kianl teaches all of the claim limitations, see the rejections above.

However, Kianl fails to teach that:

Analog graphical elements are used for the presentation of the reference value and the relative deviations, respectively, wherein first and second parallel bar elements are used as the graphic elements, the first parallel bar element representing the reference value and the second parallel bar element representing the relative deviations. The reference value is represented by positioning of a reference graphic element, such as an arrow or line respective to the bar element.

Masuda teaches :

A blood-pressure monitoring apparatus, a blood-pressure-relating



information obtaining device which iteratively obtains a piece of blood-pressure-relating information which changes in relation to a change of the blood pressure of the living subject, and a display device which displays a first graphical representation of the obtained information, and a second graphical representation of the reference value, so that the first graphical representation can be compared (Abstract of Masuda). As disclosed the collected data is displayed on a bar graph, presenting a reference value, the variation of the current value relative to the reference value, and an arrow is used to represent the reference value (this is shown as two superimposed bar elements in Fig. 8 of Masuda).

Therefore it would have been obvious to one having ordinary skill in the art at the time the applicant's invention as made to have used an analogue graphical element such as two superimposed bar elements similar to the one taught by the blood pressure monitoring system of Miwa, in the pulse oximeter user interface of Kianl in order to illustrate a graphical representation of the ratio of the amount of change of a pulse period value from a certain pulse period value (Col. 17, lines 65-67 and Col. 18, lines 1-20 of Masuda).

8. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kianl in view of US 5,912,656 to Tham et al (Hereinafter "Tham").

Art Unit: 3735

In reference to claim 12:

Kianl teaches all of the claims limitations, see the rejections above.

However, Kianl fails to teach that:

The display is formed as a multidimensional type in conjunction with other physiological variables.

Tham teaches:

A device for producing a display from monitored data functions to read, store, encode, and integrate monitored data of at least one data type from at least one monitoring device so that the related or unrelated datum is comprehensible at a glance by a user. The system produces a single superimposed and/or multidimensional image capable of portraying a present and historical data combination reflecting the monitored data's relative value at some point in time (Abstract and Fig. 4 of Tham).

Therefore it would have been obvious to one having ordinary skill in the art at the time the applicant's invention was made to have used a known technique, such as displaying multiple types of data or a multidimensional image display as a means for displaying the collected data, for better comparison between the current record with the previously collected data, similar to the one taught by the display device of Tham in order to improve the data presentation and providing a full report of the patient's activity in

Art Unit: 3735

the pulse oximeter display of Kianl.

### ***Conclusion***

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anita Saidi whose telephone number is 571-270-3001. The examiner can normally be reached on Monday-Thursday 8:30 am - 7:00 pm Est..

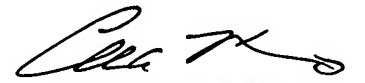
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles Marmor, II can be reached on 571-272-4730. The fax phone

Art Unit: 3735

number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

AS  
10/13/2007



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